

Appendix C

Planning Models Improvement Program Task Force – Third Meeting

Alexandria, Virginia
19-20 AUGUST, 2003

DATE: 8/21/2003

RE: PLANNING MODELS IMPROVEMENT PROGRAM TASK FORCE; MEETING
THREE; ALEXANDRIA, VIRGINIA; 19 – 20 AUGUST 2003

Task Force Members:

- Dennis Wagner, Co-Chair, Northwestern Division
- Ken Orth, Co-Chair, IWR
- Susan Durden, IWR
- David Moser, IWR
- Richard Fristik IWR
- Chris Dunn, HEC
- Rayford Wilbanks, Mississippi Valley Division
- Gloria Appell, Galveston District
- Mitch Laird, Louisville District
- Dan Sulzer, Los Angeles District
- Jim Fredericks, Northwestern Division
- Darrell Nolton, IWR
- Debbie Peterson, Jacksonville District, Absent
- Linda Hihara-Endo, Pacific Ocean Division, Absent
- Bill Hubbard, New England District, Absent
- Harry Kitch, HQ, Absent
- Bruce Carlson, HQ, Absent

Guest in attendance:

- Don Basham (HQ)
- Rich Whittington (IWR)

19 August 2003

Welcome, Introductions, Agenda Review (Orth, Wagner)

- Agenda distributed (Handout 1)
- Orth indicates that task force members Peterson, Hihara-Endo, Hubbard, Carlson and Kitch will be absent from meeting.
- Thursday the room is available for writing or subteam meetings
- Wagner apologizes for his absence at last meeting due to FAA commitment. This is followed by discussion of FAA and the relationship between the FAA effort and the 2012 report.

- Don Basham, Chief, Engineering and Construction Division, HQUSACE
- Orth summarizes the task force history and status; also, how he heard Basham speak and realized that he was wrestling some of the same problems as the task force
- Basham summarized his stake/interest in Corps models:
 - Has general oversight of Civil Works Research & Development Program
 - >50% of Corps models are engineering and construction related
 - Wants to streamline/standardize (reduce redundancies) engineering and construction modeling efforts; does not want to stifle creativity.
 - Has learned hard lessons on the Upper Miss: Don't develop major models during studies
- Basham's overall goal is to get his arms around the existing models, come up with the best in class, and then validate the models. Looking for insight from the task force on how to proceed, and also how to complement the task forces' effort
- Task force suggestions for Basham:
 - A process for independent peer review is key
 - Can apply the task force findings to engineering and H and H models
 - Recommend a strategic meeting annually to determine if the Corps has the technical capabilities to meet all the line items in the WRDA
 - Have model review integrated into model development; i.e., peer support.
 - Get best minds together to anticipate future model needs
 - Consider that problems may exist with not only the models themselves, but with the users and the data
 - Recognize that there is a trade-off between innovation and consistency
- Additional comments from Basham:
 - Models provide a mechanism to pass institutional knowledge.
 - Wants to get away from distinguishing between planning and engineering models; develop corporate suite of models.
 - Trying to better coordinate ERDC efforts with needs of the field offices.
 - Wants to share (promote approach of) HEC experiences with customer service. Be responsive to field needs.
 - Modeling needs could be anticipated earlier (example of the Upper Miss)
 - Need to have a holistic approach to modeling, engaging all stakeholders (Durden says Savannah District has an example of such an approach)
 - ERDC needs to understand the monetary and technical capabilities of their customers
 - Models should be built to meet the level of need
- Survey results will be emailed to Basham (Durden)

Survey of Planning Models (Durden)

- Summary:
 - Refer to "Survey Results" package distributed (Handout 2)
 - Survey opened 16 July 2003; Closed 12 August 2003
 - All Districts responded; 123 responses
 - Most responses from folks with >15 years of Corps experience

- Comments were both general (i.e. models should be GIS based) and specific to particular models
- Need for transparency often noted
- Homegrown models identified from survey
 - Refer to spreadsheet of models (Handout 3)
 - Many of the responses don't match task force definition of home grown, i.e., many are from the labs.
 - Duplications exist in list (HGM, EDT) represent number of people who listed it.
 - The responses in some cases point out the need to educate model users
 - Many versions of individual models exists (modified HGM models)
 - "Thanks" and further feedback to respondents will be in Planning Ahead
 - 3 lists of models have been generated:
 1. Original model list by task force
 2. List from survey results
 3. List started by the task force at this meeting (on flip charts) to expand those identified in survey results; this list will be continued over the next few weeks; so far the list includes: ORM, WHAG, AHAG, PAM HEP, FIST, MOFISH, Sav. Harbor navigation, Delaware River spreadsheet, Louisiana coastal area study models. Everglades (1x1, 2x2, NSM, ROGEM, ELM, ATLSS), WRAP, EXPERT CHOICE/FIT, EXICA, ECO EASY, Upper Mississippi environmental models, Lock rehab models, Deep draft models, Pacific NW fish models, Hoover Dike rehab model, 500 locks spreadsheet, PROSYM, POWER SYM, EX HEP)
 - Discussion about review process (timing, funding, who directs process, consistency) should be among the task force recommendations.
- Do survey results match up with goals?
 - Refer to "Survey Discussion Points" (Handout 4)
 - Discussion of how to answer the 11 questions on the bottom of Handout 4:
 1. Lots. At least 150.
 2. Laundry list of business processes
 3. Can answer for the most commonly cited models (top 5)
 4. Nationally applicable needs to be defined as transportable
 5. Can't answer
 6. Can be extracted from responses to open-ended questions
 7. SET survey. Also possible the planning capabilities survey (Rich will look into that)
 8. The top 5 could answer this; Also, see graph Durden made
 9. Don't know – aren't doing a modeling critique
 10. No, but the models that address risk can be noted; it is noted that the question is really driving at model uncertainty
 11. Can be extracted from responses to open-ended questions
 - Can taskforce address 5 objectives on top of Handout 4:
 1. Yes
 2. Suspect that there are some out there
 3. Covered

4. Covered (ecosystem, watershed)
 5. (Answer not captured)
- The objectives and questions overlap and can be combined

LUNCH BREAK

Survey of Planning Models continued

- Rich's perspective:
 - In extracting data he realized that in the survey responses the task force is dealing with knowledge, experience and perspective
- Other discussion points:
 - Is the planning community really pushing for the watershed approach when the local sponsor is only interested in their piece of the pie? Discussion of the watershed approach follows (multidimensionality, scale, definition of watershed projects, plus the notion that watershed project is a multipurpose project and that vision needs to be defined)
 - Durden suggests a short summary of the survey should go in the report plus details in an appendix. She'll draft summary and distribute to the group
 - Group wants access to data to play with – Rich will work on providing it

Comments on Task Force Papers

- Refer to page 2 of the "Report of the PMI Task Force" for list of papers (Handout 5)
- Draft report will be issued soon with most recent versions of all papers
- What's a planning model?
 - No comments
- Frameworks for organizing models
 - No comments
- Model Survey
 - 12 May paper should stand with addition of survey results
 - Scratch paper on the survey and put all survey info into Appendix D
- Planning Models Problems and Opportunities
 - No comments
- Criteria for good models
 - Issue raised with wording "proven model"
 - "Current" needs to be added to criteria
 - Should a technical support section be added?
 - Needs to include O & M
 - Points from the "what makes a good model" list developed at the first taskforce meeting plus the panel discussion from the second meeting need to be compared to paper
- Mandatory or not?
 - Would a more explicit title be better?
 - Panel discussion from the second meeting needs to be compared to paper
- Peer review process
 - Refer to "Recommendations" (Handout 6)
 - Noted that certain recommendations don't match with those of the main body of the report; eventually it was determined that the recommendations in the paper will be modified to follow those in the report; Wilbanks and Orth will talk to Harry about HQ responsibilities when making changes

- Need to define what is meant by Peer Review
- Need to describe role of centers of expertise more clearly
- There will be a problem with public perception if non-Corps representatives aren't part of a peer review
- For non-Corps models, step 1 in review is to ask preparer for documentation and about their certification process – this info may satisfy certification needs; Will have a problem with perception if it seems that non-Corps models are subjected to a higher level of scrutiny by default
- Referring to Table X in Handout 6 – Wilbanks will come up with a write-up
- Timing and funding for peer review need to be worked out
- Impacts to active projects need to be considered
- Concern is expressed about the centers' ability to handle peer review with possible staff and funding limitations; Acknowledge in the paper that the review process shouldn't delay projects
- A thought exercise about the review process is suggested
- After much discussion, group decided to move item 3a on Handout 6 under HQ responsibilities (2) as a separate item
- Discussion about the word support in (2 on Handout 6); group agrees to change it to “are responsible for”
- Group agrees to scratch item 2g (Handout 6)
- Discussion about whether to remove “processes” from items 2a; unresolved
- Discussion tabled on this item
- User certification
 - A new title (User Support) is suggested and accepted
- Data
 - No comments

General discussion on report outline

- Refer to “Report of the PMIP Task Force” (Handout 5)
- 2-3 sentence summary of each paper will be in the main report – approximately 1 page total on all the papers, see specific assignments below.
- Goal for report length – 10 pages
- Noted that a hole exists in the middle of the report (survey, options and analysis); recognize the need to tie report together with the middle sections; it is suggested that the planning process be used to bridge gap (survey – existing conditions, options – alternatives)
- Need to mention SET in the write-up about the survey
- Discussion about where alternatives were discussed (peer review, user certification, mandatory or not)
- General discussion on what is meant by subscription; how such a system functions at HEC; how it could be used for planning models
- A funding section under recommendations is suggested
- Wagner sketches out alternatives on the flip chart – a way to bridge gap in the report; alternatives: do nothing, establish planning model clearinghouse, delegate model responsibilities to national planning centers, centralize planning model responsibilities at

HQ, delegate responsibilities to MSCs, other, funding options; discussion on this suggestion will continue 20 Aug.

ADJOURN FOR DAY

20 August 2003

Opening remarks

- Orth recaps day 1; solicits comments from others:
 - Further explanation about the alternatives Wagner proposed is requested
 - Models can't be mandatory; can't stifle creativity
 - Survey has a lot of information; make it accessible
 - A second iteration of the survey may be helpful
 - With regard to filling the gap in the report:
 - Use rationale for recommendations rather than laying out alternatives
 - On the other hand, laying out alternatives will strengthen the recommendations
- Tasks for the day: report, schedule, assignments, lessons learned

Report

- Refer to Handout 5
- Table discussion on Executive Summary, Introduction, Problems and Opportunities, Survey
- Options and Analysis - much discussion on the content of that section; eventually 13 subsections are identified for the section (see below); a task member is assigned to write 1-2 paragraphs for each subsection; group brainstorms first sentence or general approach for each
- Options and Analysis subsections; to be around a paragraph each; the person responsible for drafting the paragraph is in parentheses:
 1. **Mandatory (Fredericks)** – will include info from Jim's paper and will clearly identify pros and cons; add something about toolbox
 2. **Funding (Orth)** – a very rough estimate of >\$25K per review (will depend on level of review among other things); funding must come from somewhere, though no one will want to fund
 3. **Annual strategic assessment (Orth)** – does the technology exist to complete authorized studies?
 4. **Toolbox (Sulzer)** – the certification process will result in a list of supported tools that folks are encouraged to use...
 5. **Survey (Durden)**
 6. **Planning Models (Nolton)** – define planning; why plan; define model; what is a planning model; why group limited the effort to planning models
 7. **Roles (Wagner)** – lay out the variety of management and oversight schemes considered
 8. **Peer Review/Certification (Wilbanks)** – review panel, center or clearinghouse

9. Research and Development (Dunn)

10. Users and Data (Appell) – use information from papers by Jim and Linda; drivers license question; training; support; highlight importance of good users and data for the modeling process
11. Audit (Fristic) – will include the number of models reviewed
12. Redundancy (Frederick) – reduce redundancy to maintain smaller group of good models
13. Business Process (Durden) – this will really be established in the future E.C.; no supplemental guidance

- Recommendations

- Refer to Handout 6 for the numbering of the recommendations
- Go through recommendations to make sure they will be covered under the newly created subsections under Options and Analysis; also, indicate what information needs to be covered
 1. Requires no discussion beyond definition of terms
 - 2a. Group decides that this also covered in 1; scratch 1 and leave 2a
 - 2b. Covered under paragraph “Annual Audit”
 - 2c. Covered under paragraph “Toolbox”
 - 2d. Covered under paragraph on “Roles”
 - 2e. Covered under paragraph on “Funding”
 - 2f. Covered under paragraph “Annual Strategic Assessment”
 - 2g. Already scratched from recommendations
 - 2h. Much discussion on this section; don’t want to threaten non-planners; covered under paragraph “Planning Models”
 - 2i. No paragraph required
 - 3a. (Which has been moved under 2) Covered under paragraph “Business Processes”
 - 3b. Covered under paragraph “Peer Review”
 - 3c. Covered under paragraph on “Roles”
 - 3d. Covered under paragraph on “Roles”
 - 3e. Covered under paragraph on “Redundancy”
 4. Covered under paragraphs on “Users and Data” and “Roles”; group suggests breaking the recommendation itself into 3 sentences
 - 5a. Poor grammar – run-on sentence; could plugged back in under 2; discussion to be continued after break...

BREAK

Lessons Learned

- Upon return from break, group leaves previous discussion briefly to provide input on Lessons Learned
- Durden asks each task member to answer these questions in writing:
 - What went well?
 - What didn’t go so well?
 - Most important lesson learned to pass on to future efforts?

- After answering questions, answers were handed in to Durden
- Durden will compile and circulate answers

Report cont...

- Recommendations cont...

5a. cont...:

- Remove mention of clearinghouse from 5 and 2 (this requires modification of Wilbank's paper)
- Refer to R & D
- Strike last sentence of paragraph because too wordy and redundant
- Discussion about assigning priorities for review; decide to add something to the effect of "The chief along with centers will establish priorities..." to 2

5b.:

- Discussion of the group providing a list of immediate review needs
- Seen by some as an opportunity to highlight needs identified in the survey
- By others, it may take money from deserving efforts
- Evolves into a discussion of just how to highlight survey results (which, it is noted, are not limited to R & D)
- Pointed out that without survey results, the report recommendations will be strictly process
- Survey results could be in recommendations or comments – these two options will be drafted and circulated
- For now, 5b is stricken from the recommendations

5c. Orth will redraft acknowledging effort will cost money and that it could come from a variety of sources

Table X. A think piece; not to be included in the report

- Comments on recommendations
 - Refer to pages 5-6 of Handout 6
 - Dealt with Frederick's concerns yesterday
 - Appell's concerns:
 - Models can't do everything; provokes discussion on the need to make sure national data collection efforts provide usable data for models; this will be added to recommendations under paragraph 2; Moser will draft the recommendation
 - Need for "and analytical tools" after "models" – this comment will be addressed through the definition of models
- Other discussion items on the report:
 - Lack of an identified role for the labs in the recommendations – Orth will take a crack at drafting something to address that
 - There will be a backlog of models to be reviewed early one – should the group try to estimate the size of the backlog?

- On cost estimate of review effort: estimate cost of 1 review or the total program or simply recommend a strategic review of funding needs? Focus on review of home grown models
- Concern is raised over the implications to projects if a model under review fails; noted that knowing that the model is lacking is much better than ignorance
- Discussion on how HEC reviews models; how users provide much insight from problems they find in using the models

LUNCH BREAK

Assignments

- Polish papers (as previously assigned)
- Send summary of paper to Wagner for introduction (as assigned)
- Draft paragraphs for Options and Analysis (as assigned at this meeting)
- Come up with nominations for additional second draft reviewers (group)
- Executive Summary (Orth)
- Introduction (Wagner)
- Problems and Opportunities (Orth)
- Survey (Durden)
- Recommendations (Orth)
- Lessons Learned (Durden)
- Appendices A,B and C (Nolton)
- Appendix D (Durden)
- Appendix F (Durden) (information could be in the report body rather than appendix)
- Email survey results to Don Basham (Durden)
- Distribute survey data to group in database form (Rich)
- Draft recommendation related to national data collection efforts (Moser)
- Identify lab role in the recommendations (Orth)

Schedule for Report Completion

- August 29 – all write-ups are due by email to both Nolton and Orth
- September 2 – first draft out for task force review
- September 5 – comments on first draft are due back to Nolton and Orth
- September 10 – second draft out for review by task force and other yet-to-be-identified editors
- September 12 - comments on the second draft are due back to Nolton and Orth
- Last 2 weeks of September – reserved for briefings

Key points for briefing (suggestions from group):

- Mandatory issue
- Actions to be taken
- Levels of peer review

- Toolbox
- Requirement for time and funds
- Learning organization
- State problem clearly
- Recommendations
- Fixing the models themselves isn't the complete solution
- Emphasize two groups of models
- Would this have prevented the upper Miss?

What reactions to this effort have there been at the districts?

- Modelers are wondering about the implications
- Concerns about impacts to project costs and schedules

CLOSE OF MEETING